



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,040	05/06/2005	Tetsuya Yano	03500.018108.	2351
5514 7590 03/17/2009 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				
EXAMINER				
LILLING, HERBERT J				
ART UNIT		PAPER NUMBER		
1657				
MAIL DATE		DELIVERY MODE		
03/17/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,040

Applicant(s)

YANO ET AL.

Examiner

HERBERT J. LILLING

Art Unit

1657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-23 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/88)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

1. Receipt is acknowledged of two Preliminary Amendments filed January 30, 2006 and June 14, 2006; three prior art information disclosure statements filed May 06, 2005; May 22, 2006 and January 16, 2009; and a sequence listing submitted January 30, 2006 which was approved by STIC into the file on August 02, 2006 for this Application which is a 371 of PCT/JP04? 06349 filed April 30, 2004 which claims benefit to Japan 2003-127508 filed May 02, 2003.

2. Claims 1-23 are present in this application.

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. The basis for the following restriction is in view of the record as recorded in the PCT pertaining to the search report submitted on October 09, 2004 which indicated the claimed subject matter are not so linked to form a single general inventive concept in view of :

US 5 614 576 A (RUTHERFORD DENISE R ET AL)
25 March 1997 (1997-03-25)
column 4, line 6 - line 18
column 5, line 6 - line 30
column 5, line 64 - line 66
column 6, line 7; claims; examples.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-13, **drawn to a structure** comprising a base material characterized in that the base material is coated at least partly with a

polyhydroxyalkanoate containing at least one monomer unit selected from the group consisting of those represented by one of the chemical formulae [1] to [8], classified in Classes 435, 528, 428 or 430 depending upon the base material whether it is a particulate or a plate, subclasses 435/135; 528/271 428/800+ or 430/109.2 or 109.4 or 110.1 further depending upon the processes.

Group II, claim 14, **drawn to a method for forming an image** by supplying the toner according to claim 10 ([which contains the structure according to claim 8[which according to claim 1 structure wherein the base material is particulate] **onto a recording medium, Classified Class 430, subclasses 430 subclasses 109.2 or 109.4 or 110.1.**

Group III, claim 15, **drawn to a device for forming an image** by supplying the toner according to claim 8, classified in Class 430 subclass 32.

Group IV, claim 16-22, drawn **a method for producing a structure** having a base material coated with a polyhydroxyalkanoate at least partly, comprising the steps of **immobilizing an polyhydroxyalkanoate synthetase on the surface of the base material; and polymerizing a 3-hydroxyacyl coenzyme A** selected from the **group consisting of those represented by one of the chemical formulae [9] to [15]** with the aid of the polyhydroxyalkanoate synthetase to synthesize the polyhydroxyalkanoate comprised of a monomer unit selected from the group consisting of those represented by one of the chemical formulae [1] to [8] classified in Class 435 subclass 135.

Group V, claim 23, drawn to a **method for producing a toner** comprising the step of producing the particulate structure according to one of claims 16 to 19 classified in Class 427 subclass 212.

4. The inventions are independent or distinct, each from the other because:

The structure [PRODUCT] of Invention I is patentably different from that of Invention III drawn to a device [APPARATUS].

Invention I does not require the specifics of Invention III device which requires a recording medium.

Invention II is drawn to a method for forming an image which is patentably distinct from that of Invention IV which is drawn to a method for producing a structure which encompasses the use of an enzyme on a surface of a base material as well as different from that of Invention V does not require the use of an enzyme immobilized on the base material. Group IV structures are different from that of Group I structures

5. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification as noted above.
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

6. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. This application contains claims directed to the following patentably distinct species

A) Whereby the base material is:

- i) particulate,
- ii) form of flat plate or film,
- iii) other-please specify,
- iv) any combination of above please specify.

Further whereby the base material elected above is composed of:

- u) polymer,
- v) inorganic,
- w) other-please specify,
- x) any combination of above-please specify.

Requires an election of A [Ai or Aii) or Aiii) or Aiv) and Further whereby the base of A which is either u) or v) or w) or x).

B) Whereby the polyhydroxyalkanoate monomer unit is selected from the group consisting of Formula monomer which is:

- Bi) 1;
- Bii) 2;
- Biii) 3;

- Biv) 4;
- Bv) 5;
- Bvi) 6;
- Bvii) 7;
- Bviii) 8;
- Bix) 9;
- Bx) 10;
- Bxi) 11;
- Bxii) 12;
- Bxiii) 13;
- Bxiv) 14;
- Bxv) 15;
- Bxvi) 16
- Bxvii) other-please specify;
- Bxviii) any combination of above-please specify.

Requires one of the species above.

C) Whereby the above elected polyhydroxyalkanoate monomer unit is:

- Ca) not chemically modified at least partly;
- Cb) chemically modified at least partly;

If elected further election:

Cbi) modified with at least a graft chain;

Further if elected: the Cbi graft chain has at least one group consisting of:

Cbig) thiol,
Cbih) hydroxyl,
Cbii) amino group,
Cbij) other-please specify,
Cbik) any combination of above-please
specify.

Cbii) whereby the graft chain is modified

with a PHA containing a monomer
unit having at least one group consisting
of:

Cbiiu) halogen atom;
Cbiiv) vinyl;
Cbiiw) epoxy;
Cbiix) carboxyl;
Cbiiy) other-please specify;
Cbiiz) any combination of above-
please specify.

Cbiii) Whereby the polyhydroxyalkanoate

is:

- a) not crosslinked;
- b) crosslinked partly;

if elected further election whereby PHA

monomer unit is:) ba)

vinyl;

bb) epoxy;

bc) other-please specify;

bd) any combination of above-
please specify.

Cbiv) Any combination of the above-please specify.

**Requires an election of either Ca or Cb [further elections require
between [Cbi or Cbii or Cbiii or Cbiv]**

D) Whereby the structure to form the coated material:

a) does not require an immobilization step;

b) requires an immobilization on substrate;

ba) synthetase is not required for immobilization;

bb) synthetase is required.

**Requires an election of Da species or Db [if elected further
species ba or bb species.**

E) Whereby the polyhydroxyalkanoate monomer coating the base:

- a) is not oxidized to a different species;
- b) is oxidized to a different species-please specify the

species.

Requires an election of E a species or E b species.

8. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. No claim is generic to all of the above.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species**, including any claims subsequently added. An argument that a

claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

If Applicant requires any assistance, please contact this Examiner. Applicant is required to be in full compliance with the above including:

9. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and**

(ii) identification of the claims encompassing the elected species, including any claims subsequently added which elected claims must be commensurate in scope with the elected species.

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

11. In accordance with this Tech Center Policy based on above restriction containing **product claims and process claims**, this Examiner will rejoin any non-elected process claims upon the election of a product claim which is subsequently is found allowable in view of the following guidelines:

F.P.: Ochiai/Brouwer Rejoinder form paragraph

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented

prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

12. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

13. **No claim is allowed.**

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HERBERT J. LILLING whose telephone number is 571-272-0918. The examiner can normally be reached on WORK AT HOME MAXIFLEX.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JON WEBER can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1657

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

H.J.Lilling: HJL

(571) 272-0918

Art Unit **1657**

March 15, 2009

/HERBERT J LILLING/
Primary Examiner Art Unit 1657